Capital as in Capitalism, or Capital as in Capital Goods, or Both?

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Abstract

Austrian economists employ two different concepts of capital. Sometimes they treat capital as a universal phenomenon of human action as such. Capital is then understood as a combination of heterogeneous capital goods that appear on the intermediate stages of the production process. In other instances, they understand capital as a homogeneous value magnitude expressed in money terms that is employed in business accounting. This paper argues that this practice not only creates terminological confusion, but leads to substantial misunderstandings when it comes to important theories held by the Austrian school. The point is exemplified by the Austrian theory of the business cycle.

Keywords

Capital; Capitalism; Capital goods; Austrian business cycle theory

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1. Introduction

Austrian economists employ two different concepts of capital. Sometimes, they speak of capital as the epitome of capital goods. In these cases, capital consists of a combination of heterogeneous production goods, or produced means of production, that are the necessary correlate of time-consuming, roundabout production processes. At other times, Austrian economists use capital to mean funds invested in business enterprises. Here capital relates to the money equivalent of tangible and intangible assets in business accounts.

Apart from the danger of mere terminological confusion, it does not necessarily have to be a problem that there are two different notions of capital – capital goods on the one hand and business capital on the other. If they were employed in separate contexts, they would not interfere with each other and no ambiguities would haunt Austrian capital theory. I will argue in this short paper, however, that the current use of terms is problematic. The role of capital is especially unclear in the Austrian theory of the business cycle where both concepts are employed at the same time. On the one hand, the structure of production, consisting of capital goods, plays a prominent role. It is used to illustrate the nature of malinvestments that are made by entrepreneurs during the boom phase. On the other hand, capital accounting, where the notion of business capital belongs, is also part of the story. The malinvestments mentioned above are said to be caused by an artificial decrease of the interest rate that falsify the economic calculations of entrepreneurs. To express the ambiguity in a pointed way: the Austrian theory of the business cycle maintains that capital in the sense of produced means of production is misallocated because capital in the sense of the money equivalent of business assets is accounted for incorrectly.

The main purpose of this paper is to demonstrate that there is a need for resolution in this area. I argue that in order to avoid confusion, it is necessary to relabel at least one of the concepts. I suggest that we should restrict the term capital to the money equivalent of business assets and stop talking about capital goods, instead using the term “production goods.” In support of this suggestion, I demonstrate that the Austrian theory of the business cycle would gain clarity if it were formulated without reference to the notion of capital goods.

The paper starts by presenting, in sections 2 and 3, the two different concepts of capital employed by Austrian economists. Section 4 contains a short discussion concerning why the business capital concept as employed by Austrian economists must not be confused with the neoclassical approach, whereby capital is supposed to be not only homogenous, but even objectively measurable. In section 5, it is demonstrated that Austrians employ both of their capital concepts in their theory of the business cycle and that this theory would profit from eliminating the notion of capital goods. Section 6 concludes.

2. Capital as in Capital goods

Robinson Crusoe's island is one of the classic thought experiments employed by Austrian economists. The most important terms of praxeology, the science of human action, can best be illustrated by means of an isolated individual. Starting from Robinson Crusoe, one can analyze the basic categories of human action and then add other persons and complications until we arrive, step by step, at our present, globalized economy. Rothbard (1962) obviously follows this scheme, but also Mises (1949) can easily be interpreted as following a similar strategy, starting as he does with an extensive discussion of human action as such and its implications.

In accordance with this general approach, several famous Austrian economists have argued that "the whole of economics is deduced" from a "tiny handful of premises" (Rothbard 1957: 315). Basically, economics is supposed to be deducible from our *a priori* knowledge of human action, and it is assumed, not without reason, that this knowledge can be illustrated pedagogically by means of Robinson Crusoe.

This paper is not about endorsing or criticizing praxeology *per se*. The reason for the short reference to this method is that it helps to classify the two concepts of capital that are germane to this paper. One of them, the concept of capital goods, is closely related to praxeology. If we understand by capital a combination of heterogeneous capital or production goods (production goods being defined as physical means employed by acting man, with the exception of land), we are dealing with a universal phenomenon of human action, with what can be called a praxeological category. As opposed to this, the second, business concept of capital is not a universal phenomenon of human action, but a historically specific aspect of capitalism.

I would like to illustrate the nature of the capital goods concept by referring to some quotes by important Austrian economists on the term "capital" and the scope of capital theory. It is well known that Böhm-Bawerk did not discuss capital as a phenomenon of capitalism, i.e., of the economic system where the means of production are private property and where the production process is accomplished by profit-oriented enterprises. Instead, he considered capital to be a phenomenon of human action as such. Therefore, his discussion of capital starts on Robinson Crusoe's island:

> Suppose a recluse working absolutely without capital—say some Robinson Crusoe thrown on a lonely shore without either tools or weapons. Being without capital he must at first support life in the most primitive fashion, as, for instance, by gathering berries which grow wild. Now what must happen before he can get possession of his first capital, say a bow and arrow? (Böhm-Bawerk 1889: 101)

For Böhm-Bawerk, capital is but a different word for "tools and weapons." More generally, capital for Böhm-Bawerk is a "complex of intermediate products which appear on the several stages of the roundabout journey" of production (Böhm-Bawerk 1889: 22). Intermediate products exist in each and every economy (even Robinson Crusoe employs some of them), and that is why this famous fictional character fits perfectly into Böhm-Bawerk's story.

It is important to add that Böhm-Bawerk quite consistently extended his definition of capital to the adjective "capitalist." Generally, capitalist simply has the meaning of "pertaining to capital," and in Böhm-Bawerk's terminology this must mean "pertaining to intermediate products." Capitalist production is for him "the kind of production which works in these wise circuitous methods" (Böhm-Bawerk 1889: 22), that is, which employs intermediate goods.

Böhm-Bawerk deviates from the usage of the terms capital and capitalist(ic) that is common in daily business life, but he does so in a consistent way. He wants both terms to refer to time-consuming, roundabout production where intermediate goods appear at the different stages between the input of the originary factors of production, land and labor, and the output of consumer goods.

Of the later Austrian authors, Friedrich Hayek follows Böhm-Bawerk most closely. True, Hayek (1941: 26 f.) is critical elsewhere of economists who employ Robinson Crusoe in their theorizing. Otherwise, however, he adopts Böhm-Bawerk's terminology. Hayek calls his schematic representation of the production process – what is today best known under the label of the Hayekian triangle – the "structure of production" (Hayek 1935: 38), but he employs the term "capital structure" (Hayek 1935: 40, n. 2) synonymously. Furthermore, while presenting his own approach, Hayek does not use the isolated word "capital" very often. He usually speaks of "capital goods" (esp. Hayek 1935: x f.), a different expression for "producers' goods" (Hayek 1935: 12).

It is even more interesting to see that Hayek also adopts Böhm-Bawerk's use of the term "capitalist" or "capitalistic." When Hayek (1935: 35 f.) speaks of "transition to more capitalistic methods of production," he thereby means that "the available resources are employed for the satisfaction of the needs of a future more distant than before," or, more succinctly, he means "a transition to more or less 'roundabout' methods of production."

Although his later work, Hayek (1941), does not define the terms "capital" and "capitalistic" clearly at the beginning (Hayek 1941: 3), it seems as if Hayek did not change his terminology considerably (see esp. Hayek 1941: 54-57). Like Böhm-Bawerk, Hayek's approach to capital is not concerned with historically specific characteristics of capitalism, but with universal aspects of roundabout production.

A further instance of this terminology can be found in Richard von Strigl. Strigl is important in this regard because he deviates explicitly from the common usage of terms:

> Capital also cannot be something peculiar to a specific kind of social organization. Production 'employs capital' or is 'capitalist production' if it uses originary factors of production in a specific way, regardless of whether it is organized in a 'capitalist way,' which commonly means that private ownership of capital plays a specific social role (Strigl 1934: 2).

Strigl is very clear in that he understands "capital" and "capitalistic" in the Böhm-Bawerkian sense and that his approach to capital theory turns on the structure of production, not on the organization of production under the economic system of capitalism.

Whereas Hayek and Strigl do not employ the fictional character of Robinson Crusoe, Murray Rothbard does so extensively, and especially in his discussion of capital.

> Robinson, on landing, we assume, finds himself without the aid of capital goods of any kind. All that is available is his own labor and the elements given him by nature. It is obvious that without capital he will be able to satisfy only a few wants, of which he will choose the most urgent. […] It is evident that, without the aid of capital, the only goods open to him for consumption are goods with the shortest period of production. (Rothbard 1962: 47).

For Rothbard, capital is obviously a universal category of human action and has nothing to do with capitalism. Other than Böhm-Bawerk, Hayek, and Strigl, however, he does not use the term “capitalist” or “capitalistic” in this sense. In Rothbard (1962), capitalist(ic) always refers to the economic system of capitalism, not to roundabout ways of production.

Ludwig Lachmann also follows Böhm-Bawerk, which is already clear from the title of his book *“Capital and its Structure”* (Lachmann 1978). Like Strigl, Lachmann deviates explicitly from the common usage of the term “capital.” The traditional theory of capital, in his words, “treats capital as a homogeneous value magnitude expressed in money terms.” This notion of capital, he adds, is “the concept of capital actually used in business life, in particular in its accounting and financial aspects” (Lachmann 1978: 36). With earlier Austrian economists, Lachmann rejects this terminology and focuses on the role of capital goods, i.e., production goods, in the production process. It is fundamental for him that “[a]ll capital resources are heterogeneous” (Lachmann 1978: 2), that is, that not every capital good can be used in all production processes. Once again, this is a universal problem and has nothing to do with capitalism as an economic system.

It must be added that Lachmann only uses the term “capital” itself in the same way as his Austrian predecessors. He uses the term “capitalistic” only once in his book (Lachmann 1978: 81, n. 6), and although he does not define the term there, it is obvious that he avoids equalizing “capitalistic production” and “roundabout ways of production.”

The subtitle of Garrison (2001), *“The Macroeconomics of Capital Structure,”* shows that Garrison is part of the same tradition. Once again, capital is but a component of the production process, a factor of production that is independent of the social organization.

> If labor and natural resources can be thought of as original means of production and consumer goods as the ultimate end toward which production is directed, then capital occupies a position that is both logically and temporally intermediate between original means and ultimate ends (Garrison 2001: 8).

When it comes to the term “capitalist,” Garrison generally uses it together with the word “system,” which indicates that he wants the term “capitalist” to refer to capitalism, not to the production process.

Finally, Nicolai Foss and Peter Klein also stand in the Böhm-Bawerkian tradition and consider capital to be “one of the basic factors of production” (Foss and Klein: 2012: 105). They follow Lachmann in his emphasis on the fundamental heterogeneity of the capital structure. Foss and Klein (2012: 116) argue that the “notion of heterogeneous capital is crucial not just for Austrian capital theory, but for (Austrian) economics in general.” But like Lachmann and Garrison, Foss and Klein do not use the term “capitalistic” in this way.

Not all of the mentioned authors agree on matters of method in general, or praxeology in particular. Notwithstanding this lack of agreement, all of these authors use a capital concept that is compatible with the means-end framework analyzed in praxeology. Capital consists of capital goods, and capital goods are but a different expression for production goods.

3. Capital as in Capitalism

We have seen in the last section that there is a tradition of capital theory that is consistent with praxeology. Yet there is a second tradition of capital theory within the Austrian school that deviates strongly from the first one and is not consistent with praxeology. In this second approach, the term “capital” does not relate to capital goods in the sense of production goods, but to the economic system of capitalism. Capital is supposed to be a notion that originated from business practice, specifically from the financial accounting of profit-oriented enterprises. Within the Austrian School, the first economist who adhered to this business approach to capital is Carl Menger. True, his *Principles of Economics* must be considered as the origin of the first tradition, where capital consists of intermediate goods in the production process (Menger 1871: 155). In later years, however, he changed his opinion on these matters and, in a monograph published in a German journal, endorsed the view that capital is a historically specific feature of capitalist societies (Braun 2015). He argued that economists should follow common parlance.

> When businessmen and lawyers speak about capital, they do mean neither raw materials, nor auxiliary materials, nor articles of commerce, machines, buildings and other goods like this. Wherever the terminology of the Smithian school has not already penetrated common parlance, only sums of money are denoted by the above word (Menger 1888: 37).

With "sums of money," Menger only meant sums of money "that are dedicated to the acquisition of income" (Menger 1888: 37), and he also did not only include concrete sums of money, but

> all assets of a business, of whichever technical nature they may be, in so far as their monetary value is the object of our economic calculations, i.e., when they calculatorily constitute sums of money for us that are dedicated to the acquisition of income (Menger 1888: 40).

For the older Menger, capital consists of the assets of profit-oriented businesses. It must be added immediately that this definition of capital is not praxeological. There are no business assets on Robinson Crusoe's island, and there are no sums of money there that are dedicated to the acquisition of income. Capital in this sense only exists in capitalism. It is easy to see that this approach to capital goes down a different path. While the tradition presented in the previous section serves as a basis for analyzing the production process as such, independent of the social organization, the one started by Menger (1888) is concerned with the social organization itself.

Menger did not in any way have to deny himself when he adopted the new capital concept. True, it was of course most prominently Karl Marx who associated the term capital with the economic system of capitalism, and Marx did so as a part of his explanation of how the capitalistic mode of production allows capitalists to exploit laborers. For him, capital was an instrument of squeezing the "surplus value" out of the working class based on the privilege-endowing institution of private property in the means of production. However, Marx's anti-capitalistic conclusions followed mainly from his labor theory of value. Once this theory is dropped and replaced by the marginal theory of value, this approach to capital can easily be employed in a neutral way where capital and labor are not antagonistic by definition (Holcombe 2015: 197). This is what Menger did.

It must nonetheless be said that the second tradition of capital theory is less prominent and has fewer adherents among Austrian economists. It seems that in the 20th century, only Ludwig von Mises followed Menger (1888). Mises, however, clearly rejects the other tradition.

> Some economists concluded […] that 'capital' is a category of all human production, that it is present in every thinkable system of the conduct of production processes – i.e., no less in Robinson Crusoe's involuntary hermitage than in a socialist society – and that it does not depend upon the practice of monetary calculation. This is, however, a confusion. The concept of capital cannot be separated from the context of monetary calculation and from the social structure of a market economy in which alone monetary calculation is possible (Mises 1949: 261 f.).

Mises explicitly rejects the idea that capital is a category of all human production. Although he mentions only Strigl (1934) as an example of those authors whom he disagrees with (Mises 1949: 262, n. 2), it should be clear that his verdict hits Böhm-Bawerk, Hayek, and the other authors in this tradition, too.

Like Menger (1888), Mises then goes on to define capital not as the epitome of capital goods, nor as the goods that appear in the roundabout ways of production, but as

> the sum of the money equivalent of all assets minus the sum of the money equivalent of all liabilities as dedicated at a definite date to the conduct of the operations of a definite business unit. It does not matter in what these assets may consist, whether they are pieces of land, buildings, equipment, tools, goods of any kind and order, claims, receivables, cash, or whatever (Mises, 1949: 262).

Whereas the approach to capital discussed in section 2 revolves around the role of production goods in the roundabout production process, Menger's (1888) and Mises's (1949) notion of capital serves as a basis for the famous economic calculation argument against socialism. This relationship has recently been stressed by Braun (2017) and Lewin and Cachanosky (forthcoming) who show that one of Mises's (1922) main points is that capital (as defined by Mises) does not exist in socialist societies. It is the monetary calculations of capital-based enterprises that allows for a rational allocation of the factors of production in capitalism. Socialist economies, due to the lack of private property, do not facilitate this way of calculating, and they also do not provide for an alternative. From Menger's and Mises's definition follows a historically specific theory of how profit-oriented enterprises organize the allocation of goods in capitalism (Braun 2017: 310 ff.; Lewin and Cachanosky forthcoming: 13).

4. The relationship between the neoclassical and the business capital concepts

In section 5, I will discuss the problems that result from the terminological ambiguity in Austrian capital theory. It is necessary, however, that I first resolve a potential source of confusion. Menger's (1888) and Mises's (1949) approach to capital must not be mistaken for the neoclassical one that originated from John B. Clark's work and that was elaborated on by

Frank Knight (Lewin 2005: 155 f.). The latter approach was discredited when it was attacked by the Neo-Ricardians in the second half of the 20th century. The neoclassical economists had claimed that capital is homogenous and can therefore be measured in the same way as the other two factors of production: land and labor. The Neo-Ricardians responded that it was impossible to measure capital. According to their critique, the neoclassical approach to capital presumes a paradoxical situation where the quantity of capital determines the interest rate but at the same time the interest rate influences the quantity of capital. Neoclassical economists eventually agreed reluctantly (Samuelson 1966).

After this so-called Cambridge Capital Controversy, economists' interest in the theory of capital declined (Cohen and Harcourt 2003), and I cannot rule out that some readers are tempted to take Menger's and Mises's approach for another futile attempt to make physical capital, i.e., capital goods, measurable and additive so that economic theorists can use capital as a factor in the aggregate production function.

Nothing could be further from the truth. In the neoclassical view, the concept of capital is indeed related inextricably to the idea that capital is a factor of production consisting of capital goods. Capital is even defined as the value of capital goods (Braun 2017: 320). Lachmann (1978) has shown that this whole idea of a measurable quantity of capital goods is based on the notion of equilibrium. Outside of equilibrium it is impossible to determine the values of capital goods and to add them up (Lewin and Cachanosky forthcoming). Menger and Mises, in contrast, are only marginally interested in discussing equilibrium situations. They focus rather on the market processes that appear in disequilibrium. The homogeneity of capital that they have in mind is therefore not due to the artificial assumption of equilibrium. What they have in mind is a real-life homogeneity, so to speak, the homogeneity of the actual and non-equilibrium money prices of business assets. These prices are actually used by entrepreneurs in their calculations in order to determine costs, revenues, and profits. The underlying capital concept helps Menger and Mises to explain how entrepreneurs organize the production process in capitalism. Neither they nor their followers try to determine the quantity of capital so that they can put it into a production function.

5. Capital in the Austrian Theory of the Business Cycle

Before we go on to show why the ambiguity in defining capital leads to problems for Austrian theory, it is important to stress that Austrian economists are of course well aware that there are two different approaches to capital within their tradition. However, they appear to think that it is possible to keep and apply both approaches at the same time. Ludwig von Mises, for example, employs both notions of capital. Although he considers the idea of physical capital, defined as "the totality of the produced factors of production," to be a "mythical" notion and "an empty concept," he nonetheless calls these factors "capital goods" (all quotes from Mises 1949: 263). It is only important, he adds, that we do not mix up those two terms: "From the notion of capital-goods one must clearly distinguish the concept of capital" (Mises 1949: 260).

Israel Kirzner is another author who employs both notions side by side. In Kirzner (1966), he deals with the problems of capital goods, the period of production, and waiting, whereas in Kirzner (1976) he analyzes and defends Mises's approach to capital thoroughly. Robert Murphy, in his beginners textbook, employs both notions side by side, too, calling one "capital goods" and the other "financial capital" or just "capital" (Murphy 2010). Peter Lewin struggled to combine both notions of capital in Lewin (2011), before he opted for the Misesian, business capital approach in Cachanosky and Lewin (2014; 2016) and Lewin and Cachanosky (forthcoming).

The reason behind the acceptance of this ambiguous terminology seems to be that the two concepts of capital do not interfere with each other – at least on first sight – because they are employed in different contexts. Of those authors who elaborated on the Böhm-Bawerkian approach to capital, Hayek (1935), Strigl (1934), and Garrison (2001) did so as part of their explanation of the Austrian business cycle theory, and Lachmann (1978) and Foss and Klein

(2012) did so in an attempt to explain the task of entrepreneurs in allocating heterogeneous capital goods (Braun 2017: 313 ff.). The capital concept of Menger's (1888) and Mises's (1949) tradition, on the other hand, is employed when the role of capital accounting in capitalism and the impossibility of economic calculation under socialism are explained. As these are different topics, there seems to be no risk of confusing both concepts.

It is the purpose of this section to show that this is an illusion. It leads to theoretical confusion if the term "capital" is employed in two different ways, sometimes as a historically specific aspect of capitalism, sometimes as a universal category of human action or production. A good first illustration of this confusion is a passage in Mises (1949: 512) where he writes that "[c]apital is a praxeological concept," but adds in the same paragraph that this concept "is inescapably linked with capitalism, the market economy." Yet, if it is a praxeological concept, it must also be a part of Robinson Crusoe's world. If it is not part of Robsinson's world, but only of capitalism, it cannot be a praxeological concept.

In order to keep it short, I will confine myself to the area where, in my opinion, this confusion does the most harm, namely in the expositions of the Austrian business cycle theory (ABCT). I will argue that the argument made in ABCT does not only have recourse to the heterogeneity of capital goods and maladaptations in the structure of production, as in Hayek (1935) or Garrison (2001), but at least to the same degree also to the business concept of capital. It therefore remains less than clear what role capital plays in ABCT.

It is not necessary at this juncture to summarize ABCT at greater length. In a nutshell, the boom phase of the business cycle is fueled by artificially low interest rates set by the banking system via an expansion of credit that is not backed up by prior savings. During the boom, entrepreneurs embark on malinvestments by lengthening the production process in an unsustainable way. At the turning point of the cycle, the lack of savings makes itself felt as a rising pressure on the interest rate and thus makes the antecedent malinvestments visible.

Now, the term “malinvestment” bears a relationship to both capital goods and business capital. This becomes especially clear in Mises’s exposition of ABCT. On the one hand, Mises stresses the role of maladaptations in the structure of capital goods, that is, production goods:

> A further expansion of production is possible only if the amount of capital goods is increased by additional saving, i.e., by surpluses produced and not consumed. The characteristic mark of the credit-expansion boom is that such additional capital goods have not been made available. The capital goods required for the expansion of business activities must be withdrawn from other lines of production (Mises 1949: 554).

The main point of ABCT seems to be the misallocation of scarce capital goods. The other, business concept does not play any role in this argument. This becomes clearer in the following statement where Mises explains what causes the turning point of the business cycle. According to him, entrepreneurs

> embark upon an expansion of investment on a scale for which the capital goods available do not suffice. Their projects arc unrealizable on account of the insufficient supply of capital goods. They must fail sooner or later (Mises 1949: 556).

So far, there is no risk of confusion when it comes to the capital concept Mises employs. However, in the very pages where Mises develops ABCT he applies also the second notion of capital. The point is that the decisions on the investment and allocation of capital goods are oriented by what Mises calls capital accounting: “All these ventures and processes are intellectually controlled by capital accounting, the acme of economic calculation in monetary terms” (Mises 1949: 488). The malinvestments of capital goods are accordingly caused by a distortion of the monetary calculation of entrepreneurs. Monetary calculations that are distorted by an artificial credit expansion

> make some projects appear profitable and realizable which a correct calculation, based on an interest rate not manipulated by credit expansion, would have shown as unrealizable. Entrepreneurs embark upon the execution of such projects. Business activities are stimulated. A boom begins (Mises 1949: 550).

So in the story that ABCT tells, both capital goods and business capital play an important role. There are malinvestments in the structure of capital goods that are caused by a distortion of capital accounting.

This unfortunate terminology becomes even more obvious when we have a look at how Mises narrows down the meaning of the term "capital goods" in his exposition of ABCT. In an earlier passage of his book, he defines capital goods as "produced factors of production" (Mises 1949: 263). Defined in this way, capital goods include all existing produced factors of production, no matter whether they are owned by businesses, households, or the state. Yet, when it comes to ABCT, Mises's capital goods comprise business assets only (Braun 2017: 319).

> [T]he drop in interest rates falsifies the businessman's calculation. Although the amount of capital goods available did not increase, the calculation employs figures which would be utilizable only if such an increase had taken place (Mises 1949: 550).

The drop in interest rates does not falsify the calculations of consumers or of the government, or if it does, the effect is not important enough for Mises to even mention it. Instead, it is all about the "businessman's calculations." And these only involve business assets, that is, only those capital goods that are employed by enterprises, not all capital goods as defined by Mises.

In short, what starts out as a theory stressing the role of capital goods turns out to be a theory stressing the role of capital accounting and business capital. It is not the capital goods or production goods concept of capital that is crucial in ABCT, but from beginning to end the business capital concept.

I would like to add that the time aspect of the production good concept of capital does not therefore have to be dropped. Since Carl Menger introduced the order of goods and the structure of production, Austrian economists have been emphasizing the role of the time period that evolves between the input of production factors and the output of consumption goods (see section 2). In traditional ABCT, these ideas are prominent when it comes to explain the temporal nature of the malinvestments that result from artificially lowered interest rates. Entrepreneurs, so the argument goes, start too many long-term projects and build too many durable production goods that pay off only in the more distant future.

That it is possible to reformulate ABCT on the basis of the business capital concept without abandoning the time aspect has been indicated recently by Cachanosky (2015) and Braun (2017). Cachanosky and Lewin (2016) and Lewin and Cachanosky (forthcoming) have shown that it is possible to transfer the Böhm-Bawerkian idea of the length of the production process to the financial sphere analyzed by Menger and Mises. It then applies to the period between the moment(s) when money is invested and the moment(s) when the investment pays off. Accordingly, ABCT turns on the influence of the credit expansion on the "duration" (Macaulay 1938) of investment projects: An artificial drop in interest rates makes entrepreneurs calculate wrong numbers for the value of their business projects and increase the duration of their investments in an unsustainable way. The capital goods concepts is not relevant in this formulation.

6. Conclusion

In this short paper I presented the two different notions of capital employed by Austrian school economists. The capital goods concept is usually employed as a part of Austrian business cycle theory and entrepreneurship theory. The business capital concept is highlighted in the discussion of economic calculation under capitalism and socialism. I then made a case for the change of this practice as it is ambiguous terminology and, more importantly, even leads to confusion in substance. This was demonstrated by reference to Austrian business cycle theory. In the expositions of this theory, the business capital concept slips in through the backdoor, thus making it difficult for the reader to understand what is meant by the term "capital" at different instances.

I conclude that it would be best to stick to the business capital concept and to avoid the term "capital goods." Instead, Austrians should use terms like "production goods" or "produced means of production." Nothing would be lost, and a lot of clarity would come from this change. Furthermore, as I indicated briefly, the Austrian theory of the business cycle would profit if there was a clear distinction between the influence of the interest rate on capital accounting, which can be explained on the basis of the business capital concept, and the influence of capital accounting on the structure of production. It is an unnecessary complication to employ the term "capital" in the description of the structure of production as well.

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